

100th Anniversary of birth of the Czech desmidiologist Dr. Jiří Růžička (1909-1993)

Desmids are unicellular green algae, which belong to the morphologically most diversified organisms in the world. Respecting this character, they can be included into such extremely and most variable groups of organisms like diatoms, marine molluscs and several others. At that time when taxonomic classification was based mainly on morphological diversity the taxonomists of mentioned groups had to work especially precisely, with particular attention to variability of different forms and morphotypes, and with patience to study them.

On 12th May 1909, about 100 years ago, Dr. Jiří Růžička was born in Prague. He had all the qualities mentioned above and therefore he became one of the best taxonomists of desmids, not only in central Europe, but in the whole algological community worldwide. He was interested already from his youth in botany, but he studied first Faculty of Law. This study was quite beneficial to his further career in taxonomy. Dr. Růžička had a good sense of precise classification and perfect formulations of descriptions of complicated algal forms. He was also an outstanding specialist in nomenclatoric rules. He worked successfully as a member of the Czech botanical nomenclatoric committee and his unorthodox and modern approach to the application of nomenclatoric rules was very valuable.

His enormous interest in botany, phycology and particularly desmidiology changed his life. He finished his PhD studies also in biology (phycology) and he started to work professionally in phycology in 1951, particularly in Hydrobiological and later (from 1971) he worked in Microbiological Institute of the Czech Academy of Sciences. He studied systematically the desmid microflora of Czechoslovakia and published numerous valuable studies about this group of algae from central Europe. Precise documentation, clear and unique presentation of results and exactness of the text were the main advantages of his papers.

Another priority of Dr. Růžička's work was the investigation of the natural and induced variability of desmids. This modern orientation was particularly important in such a morphologically



diversified group like desmids. Dr. Růžička focused his studies first on rich natural populations, but soon he included study of morphological changes in algal cultures into his methodological approach. Later he extended his experiments also to other groups of unicellular green algae and partly also to a few diatoms. He was interested in the influence of various factors on morphology and also of combined changing factors in interaction. He developed and constructed special sophisticated cultivation equipments for this work with precise registration of influencing parameters. His results in this field were quite original and are important up to now for understanding the morphological variation of unicellular algae under environmental conditions.

Unfortunately, Dr. Růžička had no students. But he was very active in Czech Phycological Society (he was secretary of this society for many years), organized conferences and excursions with participation of many students, and he influenced very positively the whole generation of young phycological specialists in the period after the

Second World War. His opinion was an important criterion of quality of the produced and published scientific results for a long time.

At the end of his phycological career, Dr. Růžicka started to work on an important and monumental theme: monographic elaboration of desmids of central Europe. Unfortunately, only two volumes were edited and the third was already prepared for print, but nobody was able to finish this work after his death in 1993. It is a great pity, the first parts are characterised by extraordinary precision of elaboration and are of great value.

The taxonomic classification has been based on molecular and genetic approach in recent years. However, the problematic of morphological variation, changes under various ecological situations and study of life cycles of various algal types remain important for the modern understanding of the diversity of all biological groups. However, it is interesting that just desmids belong to such groups of organisms, the cultivation of which is not yet satisfactory mastered and controlled, and the phylogenetic studies are still at the beginning. Scientific activities of Dr. Růžicka did not surpass this modern period, but his results belong surely to the basic data, which remain important for understanding of life of such a fascinating group of algae like desmids. The contribution of Dr. Růžicka to the knowledge of the world of microscopic algae is surely admirable and indisputable.

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